Meteorology

Department of Geography, College of Arts & Sciences

Program of Study

The discipline of meteorology is the study of the physical characteristics of the lower atmosphere and the processes that generate the weather. Students who complete the major will be exposed to concepts, methodologies, and practical applications related to both weather analysis and forecasting. The core of the degree includes courses in synoptic meteorology (study of atmospheric circulation, cyclonic rotation, weather forecasting, and weather map analysis) and dynamic meteorology (atmospheric gases and motions, and heat exchanges). Through this structure, students learn how to forecast weather and use the specialized equipment and reporting techniques associated with weather observations, weather radar, and remotely sensed information.

Faculty

The Department of Geography, established in 1917, has earned a national reputation for excellence. All meteorology courses are taught by faculty members holding doctoral degrees from distinguished universities across the United States. The faculty members offer a broad range of competencies, thus providing excellent scope for students with different inclinations and talents.

Scholarships

Detailed information on scholarships is available from the department advising office (309/298-2763), Western's Scholarship office (309/298-2001), or on the web at www.wiu.edu/Scholarship.

Honors in Meteorology

To be eligible for the Illinois Centennial Honors College, entering freshmen must have an ACT composite score of at least 28 OR have a 26 or 27 composite ACT and be in the top 15% of their graduating class OR have an ACT composite score of at least 24 and be in the top 10% of their high school graduating class. Transfer students with at least 12 semester hours and up to 59 semester hours of undergraduate courses are admitted with a grade point average of at least 3.3 OR 3.4 for 60 semester hours or more. To find out more, visit wiu.edu/Honors/.

General honors seminars in the humanities, sciences, and social sciences provide students with the opportunity to explore key academic issues with distinguished faculty members.

Student Activities

Two departmental societies provide students with an opportunity to engage in activities that support geographical knowledge and awareness. Gamma Theta Upsilon is the international honor society in geography and is open to students who have completed at least nine hours of geography courses with at least a 3.0 grade point average. The Student Society of Geography is open to all students in good academic standing who are interested in geography, regardless of major. The societies sponsor a lecture series, numerous field trips, and other activities of interest.

Special Opportunities

In addition to the in-class educational experience, students are involved with real-world applications of meteorology. Such applications include creating forecasts that are aired on local radio stations, delivering the weather segment of the television news on WWIR (on-campus TV station), posting weather forecasts on the Geography department’s website, and engaging in internships at a National Weather Service regional office or the weather department of television stations. The department has several instruments.
and facilities to enhance the student experience, including
a weather station, weather radar, a weather laboratory, and
a Computer/Geographical Information Systems (GIS)
laboratory.

After College

With completion of the degree in Meteorology, students
will meet the National Weather Service (NWS) curricular
requirements for employment as a meteorologist.
Our graduates have been highly successful in finding
employment in four areas:
1. Weather Forecasting – Forecasting has always been at the
heart of meteorology and has seen exciting advances,
which aid in the ability to predict the weather. The
largest employer of weather forecasters is the NWS,
where meteorologists produce forecasts for the United
States with sophisticated computer models.

2. Atmospheric Research – Research meteorologists often work closely with scientists in basic physical disciplines such as chemistry,
physics, and mathematics, as well as with oceanographers, hydrologists, and researchers in other branches of environmental
science.

3. Broadcast Meteorology – Broadcast meteorologists deliver their own local and national forecasts on television and radio.

4. Private Sector Meteorology – Private forecasting organizations provide highly specialized forecasts for clients with very specific
needs such as short-term, small-scale snow forecasts for city public works managers, weather reports for commodities traders
who are concerned about the effects of weather on crop production and prices, and game-day weather reports for athletic
events such as professional football games and golf tournaments.

Feel free to contact the Department of Geography for further information about the Meteorology degree or to arrange a campus
visit. The department phone number is 309/298-1648 and our e-mail address is geography@wiu.edu. You can also learn more
about the department by visiting our website at www.wiu.edu/geography.

Located in Macomb (population 20,000), with a campus in the Quad Cities (Moline, IL), Western Illinois University offers a
caring and supportive learning environment to more than 13,000 students in the heart of west-central Illinois. Western students
have all the advantages of a large public university—strong faculty, state-of-the-art technology and facilities, and a wide range of
academic and extracurricular opportunities—in an atmosphere free from distractions. Western Illinois University is a member
of the NCAA and competes at the Division I level, sponsoring 20 intercollegiate sports in a broad-based athletics department.
Western’s presence in the Quad Cities spans more than 40 years, and that campus offers undergraduate and graduate programs to
more than 1,500 students. The core values that are at the heart of the University are academic excellence, opportunity, personal
growth, and social responsibility.

Western’s GradTrac and Cost programs guarantee that students can achieve their degrees within four years while paying a fixed
rate for tuition, room, and board.

Western Illinois University complies with all state and federal nondiscrimination laws, orders, and regulations. Western Illinois
University is an Affirmative Action/Equal Opportunity institution and affirms its commitment in all programs and activities to
nondiscrimination on the basis of race, sex, religion, age, sexual orientation, marital status, disability, national origin, and status as
a disabled veteran or Vietnam era veteran.

www.wiu.edu/geography

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